

DETAILED ACTION

Terminal Disclaimer

1. The terminal disclaimers filed on January 14, 2010 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of US Patent No's. 7,175,268 and 7,303,272 and any patent granted on Application No. 11/582,962 have been reviewed and are accepted. The terminal disclaimers have been recorded.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Brett Sylvester on March 5, 2010.

The application has been amended as follows:

On page 6, line 15, the formula " $A_{41}-N=N-A_{42}-N=N-A_{43}$ " has been replaced with the formula " $A_{41}-N=N-A_{42}-N=N-A_{43}$ ".

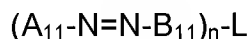
On page 56, line 15, the formula " $A_{41}-N=N-A_{42}-N=N-A_{43}$ " has been replaced with the formula " $A_{41}-N=N-A_{42}-N=N-A_{43}$ ".

In claim 6, line 3, the formula " $A_{41}-N=N-A_{42}-N=N-A_{43}$ " has been replaced with the formula " $A_{41}-N=N-A_{42}-N=N-A_{43}$ ".

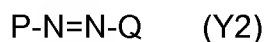
In claim 9, line 4, the formula " $A_{41}-N=N-A_{42}-N=N-A_{43}$ " has been replaced with the formula " $A_{41}-N=N-A_{42}-N=N-A_{43}$ ".

Reasons For Allowance

3. The following is an examiner's statement of reasons for allowance: This application teaches: (1) a yellow ink for inkjet recording comprising an aqueous medium and at least two dyes, wherein the at least two dyes each independently has a λ_{\max} of from 390 nm to 470 nm, a ratio of $I(\lambda_{\max} + 70 \text{ nm})$ to $I(\lambda_{\max})$ of 0.4 or less, wherein $I(\lambda_{\max} + 70 \text{ nm})$ represents an absorbance at a wavelength of $\lambda_{\max} + 70 \text{ nm}$ and $I(\lambda_{\max})$ represents an absorbance at a wavelength of λ_{\max} and an oxidation potential higher than 1.0V versus SCE, and wherein at least one of the at least two dyes is a dye represented by formula (Y1)



wherein A_{11} and B_{11} each independently represents a heterocyclic group that may be substituted; n is 1 or 2; and L represents H, a monovalent substituent, a single bond, or a divalent linking group, provided that when n is 1, L is H or a monovalent substituent, and A_{11} and B_{11} are both monovalent heterocyclic groups; and when n is 2, L is a single bond or a divalent linking group, A_{11} is a monovalent heterocyclic group, and B_{11} is a divalent heterocyclic group; and wherein at least one of the at least two dyes is a dye represented by formulae (Y2) or (Y3)



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wherein P represents an aryl group that maybe substituted; and Q represents a heterocyclic group that may be substituted;



wherein X and Y each represents an aryl group that may be substituted; (2) a black ink for inkjet recording comprising an aqueous medium and at least two dyes, wherein the at least two dyes each independently has a λ_{\max} of from 500 nm to 700 nm and a half-value width of 100 nm or more in an absorption spectrum of a diluted solution, the absorption spectrum being standardized to have an absorbance of 1.0 at the λ_{\max} , wherein at least one of the at least tow dyes has an oxidation potential higher than 1.0V versus SCE; (3) a magenta ink for inkjet recording comprising a first dye and a second dye having a different structure from the first dye, the first dye and the second dye each independently having an oxidation potential higher than 1.0V versus SCE, wherein the first dye is an azo dye comprising an azo group, each end of the azo group having a hetero ring and the second dye is an anthrapyridone dye and (4) and ink set comprising the above yellow, black and magenta inks. With respect to the yellow ink, the closest prior art of record is JP 2003/221534, which teaches a yellow ink composition comprising a dye having a λ_{\max} of from 390 nm to 470 nm and a ratio of I ($\lambda_{\max} + 70$ nm) to I λ_{\max} of 0.2 or less of the formula (Y-I)



wherein A^{11} and B^{11} each independently represents a heterocyclic group that may be substituted (i.e. dye of applicants formula (Y-I) wherein n is 1 and L is H) but fails to

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teach or fairly suggest a yellow ink wherein at least one of the at least two dyes is a dye represented by the formula (Y2) or (Y3):



wherein P represents an aryl group that may be substituted and Q represents a heterocyclic group that may be substituted;



wherein X and Y each represents an aryl group that may be substituted as claimed by applicants. With respect to the black ink, the closest prior art of record is WO 2004/029166 and WO 2004/078860, however, applicants have filed a certified English translation of their foreign priority which entitles them to a date of October 23, 2003 which is earlier than any of the effective filing dates of the above WO references. Accordingly, the 102(a) rejections over each of the above references have been overcome. With respect to the magenta ink, the closest prior art of record is U.S. Patent Application Publication Nos. 2004/0050291, issued to Taguchi et al., US Patent No. 7,323,045, issued to Hanmura et al. and JP 2003/231835 in view of JP 2003/192930, however, applicants have filed a certified English translation of their foreign priority which entitles them to a date of October 23, 2003 which is earlier than any of the effective filing dates of the above U.S. Patent Application Publication or US Patent. Accordingly, the 102(a) and 102(e) rejections over the above U.S. Patent Application Publication and US Patent references have been overcome. Furthermore, applicants have provided evidence in the specification that a magenta ink comprising the combination of the azo dye and anthrapyridone dye of the instant claims provides

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superior light fastness, ozone fastness and bleeding resistance as compared to a magenta ink composition comprising the azo dye alone or a magenta ink composition comprising the anthrapyridone dye alone. See Tables 12 and 13 of the specification. Accordingly, applicants showing of unobviousness and unexpected results have overcome the 103(a) rejection over JP 2003/231835 in view of JP 2003/192930 and the application is allowable.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helene Klemanski whose telephone number is (571) 272-1370. The examiner can normally be reached on Monday-Friday 7:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on (571) 272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Helene Klemanski/
Primary Examiner, Art Unit 1793